



# FOREST RESTORATION

## HEALING TROPICAL FORESTS FOR SPIRITUAL RENEWAL

An issue primer for religious leaders and faith communities for use during the UN Decade on Ecosystem Restoration

### A FAITH COMMUNITY CONTRIBUTION TO FOREST RECOVERY

Restoration of forest landscapes through tree planting, seed collection and propagation, agroforestry, and many other restoration methods offers a way to recover some of the essential forest functions that have been lost through widespread deforestation and degradation. It can also offer a route to spiritual recovery and renewal as we work with nature to rebuild our bond with forest ecosystems.

Grounded in the belief that forests have inherent spiritual value, the work of forest restoration and stewardship can become a profound spiritual practice. There are many inspiring examples of faith communities around the world taking the lead in forest restoration.

### KEY FACTS

- Decades of deforestation and forest degradation have steadily reduced the world's forest cover. Global forest area decreased by 178 million hectares between 1990 and 2020—an area the size of Libya. (SOWF 2020, p.12)
- Restoration of forest landscapes can help mitigate these historic forest losses, even as we continue the work to achieve zero deforestation.
- Community-based forest restoration has an established record of increasing local biological productivity, recovering forest ecosystem services, and augmenting local livelihoods.
- For every dollar spent on restoration, between \$3 and \$75 dollars of economic benefits from ecosystem goods and services can be expected.



- In Indonesia, there are over a dozen “eco-pesantren,” which are Islamic boarding schools that prioritize environmentalism. Among the most prominent is Darul Ulum in Sukabami, West Java, where a seven-hectare riverside area was decreed *harim*—a forbidden zone for development—and 700 trees, including mango, avocado and durian, were planted on-site. Every student at the school is required to plant a tree before they graduate.
- Orthodox churches in Ethiopia have protected forests surrounding churches for hundreds of years, conserving unique and precious biodiversity. These church forests have become vital for protecting rare native plants as well as vivid representations of Eden to the local church communities.
- In Colombia, in the department of Chocó, the Catholic Diocese of Quibdó has collaborated with the Antonio Anglés School to create the Environmental Center for Ethnocultural Biodiversity of Chocó. As part of its mission is to raise awareness among students about the environmental dangers of mining, the Center has initiated a restoration program on 130 hectares of tropical forest previously degraded by mining.
- In the eastern Democratic Republic of the Congo, subsistence farmers have been empowered by the recognition that the incorporation of agroforestry principles into their farms is directly contributing to what they see as God’s reconciling work in the world.



Inspired by these and similar restoration successes, faith communities now have a rich opportunity to contribute to a global goal of restoring forest ecosystems as part of the current **UN Decade on Ecosystem Restoration**. This global but decentralized effort, extending from 2021–2030, aims to reverse the rampant degradation of forests and other land and sea ecosystems through projects large and small, many of them led by local groups.

This primer shows why faith groups should support and participate in forest restoration projects that contribute to the UN Decade on Ecosystem Restoration, and details what such projects can accomplish. While it is not a how-to manual, it discusses the considerations faith groups should keep in mind as they pursue this work. In this way, it is intended to align the larger goals of the UN Decade with the spiritual aspirations of communities of faith.

#### KEY FACTS

- Many of the benefits of restoration, from better crop yields and water supplies to protection from natural disasters, accrue to poor rural communities who depend on forests.
- The potential for forest restoration is large. Globally, some 1.8 billion hectares of currently degraded land has forest potential. Subtracting urban regions and croplands leaves some 900 million hectares available for forest expansion through targeted restoration. (Bastin et al., 2020, p.77)
- Tropical rainforest countries share in the potential for forest restoration. Brazil alone has nearly 50 million hectares of land where forest landscapes could be restored. (Bastin et al., 2020, p.77)

## KEY FACTS

- Large-scale forest restoration is needed to attain the Sustainable Development Goals, meet international climate goals, and reverse the loss of biodiversity. (FAO/UNEPa, 2020, p.25)
- The IPCC has suggested that an increase of 1 billion hectares of forest through restoration will be necessary to store enough carbon to limit global warming to 1.5°C by 2050. (Bastin et al., 2020, p.76)
- Although nations have begun to recognize the potential for and usefulness of forest restoration, global restoration efforts have been piecemeal so far. Since 2000, roughly 27 million hectares of forest landscapes have been restored. This falls far short of international targets.
- The New York Declaration on Forests calls for restoration of 150 million hectares of forest by 2020, and 350 million hectares of restoration by 2030. (NYDF, 2019a, p.13)

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**The UN Decade on Ecosystem Restoration is dedicated to preventing, halting and reversing the degradation of ecosystems worldwide. It represents an opportunity to raise awareness about the need for forest restoration and a chance to make real progress on international restoration commitments. It is also an important entry point for faith-based forest restoration efforts.**



# RESTORING FORESTS, RESTORING OURSELVES



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The restoration concept has resonance with many faith systems. Restoration offers us a chance to give back to the Earth and reverse the tide of ecological destruction. In the process of forest restoration, we not only revitalize forests, we restore ourselves and our spiritual link with nature as a sacred trust.

Restoration of forest landscapes is the necessary complement to ending tropical deforestation—something equally as urgent if we wish to meet the development, biodiversity, and climate goals that nations have collectively embraced. The more successful we are at restoring functioning forest landscapes and the ecosystem services that they provide, the greater our capacity to achieve these goals.

Halting the on-going destruction of the world's tropical forests remains the best way to safeguard the innumerable human, wildlife, and climate benefits that these vital biological sanctuaries provide.

But what of the millions of hectares of rainforest that have already been cleared or degraded and their benefits lost or severely compromised? What is the opportunity in these landscapes for ecological and spiritual renewal?

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# THE 10 STEPS OF THE UN DECADE ON ECOSYSTEM RESTORATION

Against a backdrop of environmental crisis, the UN Decade on Ecosystem Restoration is a chance to revive the natural world that supports us all.

- 1. Empower a global movement.** No single entity can steer the course in this endeavor. The UN Decade is therefore designed to connect and empower the actions of the many.
- 2. Finance restoration on the ground.** Restoration takes resources. Governments, international lenders, development agencies and private business will all have to ramp up their support.
- 3. Set the right incentives.** Reward restoration with policy and financial incentives and curtail harmful agricultural and fishing subsidies.
- 4. Celebrate leadership.** Over the past years, we have witnessed incredible momentum and leadership around restoration. The UN Decade will celebrate this and encourage others to step up.
- 5. Shift behaviors.** The UN Decade will work with all partners to identify and encourage restoration-friendly consumption, including shifting diets and promoting restoration-based products.
- 6. Invest in research.** Considerable investments are needed to identify the best practices to restore our planet – one plot at a time.
- 7. Build up capacity.** Build the conservation and restoration capacity of local groups, particularly marginalized groups that stand to lose most from the continued destruction of ecosystems.
- 8. Celebrate a culture of restoration.** Shifting from plundering the planet to healing it is a cultural challenge. The UN Decade calls on artists, storytellers, producers, musicians and connectors to join the #GenerationRestoration.
- 9. Build up the next generation.** The UN Decade's strategy makes a direct link between the well-being of youth and the goals of restoration. Education for restoration will turn today's children into ecosystem ambassadors, provide skills for sustainable jobs and ensure that the UN Decade's achievements far outlive its timeframe.
- 10. Listen and learn.** Share your restoration experiences and expertise to power the global restoration movement.





## WHAT IS FOREST RESTORATION?

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Restoring forests involves returning trees to former forest lands and improving the condition of degraded forests. Forest restoration is best viewed as only one element of a three-part strategy to protect, expand, and sustain rainforests. The first element is to preserve remaining primary forests by halting deforestation. The second element is to restore natural forests in degraded landscapes and increase forest cover in farm settings. The third element is to sustainably manage both primary and production forests, as well as adjacent agricultural lands, so that they retain their productivity and ecological integrity over the long term. (NYDF Assessment Partners, 2019, p.25, 82).

### A BROAD ARRAY OF RESTORATION ACTIVITIES

Forest restoration is a broad term that includes a spectrum of different activities, ranging from minimal to more intensive interventions. These include:

- **Allowing natural forest regeneration** to take place in harvested or disturbed areas (often called passive restoration);
- **Augmenting natural regrowth** in harvested or degraded forests with additional tree planting and care;

- **Actively re-establishing forests** on lands where forests have been cleared (such as croplands and shrublands); and
- **Improving existing landscapes with trees**, such as in agroforestry systems, where forestry and agricultural activities are combined in a modified forest setting.

Reforested areas span a range of sites and uses from protected forests and wildlife reserves, to production forests where tree harvesting continues, to farmlands incorporating trees. Not surprisingly, the blend of ecological, economic, and social benefits of these different forms of restoration can differ widely.

In this primer, we consider mostly small-scale restoration projects undertaken at the community level with the goal of restoring a range of forest ecosystem functions. These are the kinds of projects that faith groups can productively lead or contribute to, particularly as contributions to the UN Decade on Ecosystem Restoration. We do not consider large-scale forest restoration projects which, while necessary and important, involve mass plantings and do not tend to deliver the same local community or wildlife benefits.

**Restoration is about working with nature. Where possible, this means relying on the remarkable in-built resilience of ecosystems, and where necessary, augmenting natural recovery with seeds or seedlings appropriate to the site, as well as aftercare to enhance survival.**

Restoration is about working with nature. Where possible, this means relying on the remarkable in-built resilience of ecosystems, and where necessary, augmenting natural recovery with seeds or seedlings appropriate to the site, as well as aftercare to enhance survival. A necessary step in all forest restoration is to first address and remove the original causes of forest destruction—the drivers of deforestation; otherwise restoration will be short-lived.

#### **RESTORATION CAN'T SUBSTITUTE FOR PRESERVING EXISTING RAINFORESTS**

It is important to understand that forest restoration doesn't directly offset deforestation of primary rainforests. It cannot, in any reasonable time frame, fully regenerate a rainforest that has been destroyed and which may have taken tens of millions of years to evolve. Therefore, it shouldn't be seen as a substitute for preserving existing natural forests. Tropical deforestation continues to occur at unacceptable rates, and halting such destruction remains a top priority and a spiritual concern of the highest order for people of faith everywhere.

The rationale for restoration is that rainforest loss has become so widespread and devastating that we have no choice now but to actively invest in restoring degraded forests. But this should not be framed as an exact re-creation of the original primary forests. Truly regenerating the complex ecosystem functions and the rich complement of biodiversity, climate, economic and cultural benefits associated with primary rainforests would require many decades or longer, if it could be done at all.

#### **REBUILDING FOREST ECOSYSTEMS, RESTORING FOREST FUNCTIONS**

Even though it can't fully substitute for fallen rainforests, forest restoration offers substantial benefits on its own—both short- and long-term. It can reboot the process of rebuilding forest ecosystems, restore many ecosystem functions, help retain and increase biodiversity, make surrounding forests more climate-resilient, and relieve pressure on remaining primary forests.



Forest restoration can also deliver substantial economic and social benefits to local people by increasing the quantity of forest products available for local use or sale, increasing food and water security, protecting human health, and helping communities mitigate and adapt to the local effects of climate change. When combined with conservation and sustainable use, forest restoration is the link needed to move from a state of continued forest degradation to a positive state of improvement and repair of global forests. (Gan et al., 2019, P.S-3; NYDF Assessment Partners, 2019, p.24)

### **ADOPTING A LANDSCAPE APPROACH TO FOREST RESTORATION**

Community forest restoration activities usually take place at a relatively small scale, involving small groups and in a limited geographic area. But these projects shouldn't be seen simply as isolated activities. They take place in and are affected by the larger landscape that surrounds them, and need to be planned with these connections in mind. Within these larger "landscapes," many different land uses—such as agriculture, production forests, primary forests, protected areas, and human settlements and infrastructure—may coexist and interact, creating mosaics of land uses. The landscape mosaics in which many rural communities exist can be quite varied, with small-scale farm fields, pastures, agroforestry plots, forest patches, larger unbroken forest tracts, and wild areas all occurring in relative proximity, and all interconnected. Most community-based forest restoration will probably occur in such mosaics, and will involve integrating more trees into these living landscapes where many land uses intersect (Mock and Tschentscher, 2016, p.12).

Landscapes are more than just physical locations. They include the plant and animal inhabitants, as well as the people and local institutions that live in and affect those locations.

In fact, landscapes are best thought of as the set of overlapping ecological, social, and economic networks that exist in a given area. Restoration can benefit all of these interconnected networks (Andrasko, 2016, p.2-3). This holistic approach to restoration is known as **Forest Landscape Restoration**, and often involves not just select sites but entire watersheds, jurisdictions, or geographic regions.

The overall goal of forest landscape restoration is to restore ecological integrity at the same time as improving human well-being. By working across landscapes and not just individual sites, restoration efforts can accommodate a number of land-uses and the trade-offs they entail. This means that multiple benefits, including economic and cultural benefits, in addition to biological and ecological benefits, can be achieved simultaneously. For example, restoration in some agricultural sites can concentrate on generating income and environmental benefits through agroforestry plantings, while restoration in nearby wild areas could target watershed improvement and biodiversity protection.

### **A LONG-TERM VISION AND COMMITMENT**

Effective restoration is not a short-term endeavor. It takes time to gradually restore ecosystem functions, and requires a multi-year commitment to sustaining the restored area. It also requires a restoration vision that extends over many years, and that includes the ecological benefits as well as the benefits to human welfare, including employment, recreation, and the expression of spiritual and cultural values. Some restoration benefits may appear relatively soon after restoration begins, such as a decrease in soil erosion as protective forest cover is reestablished, or an increase in farmer income from new agroforestry products. Other benefits will only develop gradually as the ecosystem structure and functioning slowly recover.



## USING AGROFORESTRY TO RESTORE DEGRADED FOREST IN THE PERUVIAN AMAZON

A group of local farmers in the degraded lands bordering Peru's Tambopata National Reserve are turning to agroforestry to create a farm/forest buffer zone around the park, which is a recognized biodiversity hotspot in Peru's Amazon region. Over the last several decades, illegal mining and the planting of single-crop papaya plantations have ravaged the original forest. Papaya farming strips the soil of nutrients, and farmers often abandon their trees after a few years, moving on to clear new nutrient-rich forest plots and perpetuating the cycle of deforestation.

With help from AIDER, a Peruvian NGO, farmers in the park buffer zone are transitioning to sustainable cacao production using a mix of trees and crops. A typical agroforestry system in this area might include a main crop, such as cacao; a shade-producing tree, such as banana or papaya; a recovery crop such as guava, and quick and slow-growing timber-producing trees. Wild trees might also be mixed in, and livestock may also be part of the equation. On one local farm, the farmer grows 15 varieties of native flowers to sell to local ecotourism lodges. This mix of trees, shrubs, and crops mimics some of the behavior of a forest, providing modified habitat, preserving nutrients, and regulating water flow—all while providing a diversified income stream to farmers. The result is that farmers have every incentive to preserve their land—and the park buffer zone—rather than move on.

AIDER's work to help farmers with their agroforestry transition is just one of many local initiatives contributing to Initiative 20x20, which is a regional effort to restore 20 million hectares of forest in Latin America and the Caribbean. Some of the money funding AIDER's Tambopata work comes from the sale of carbon credits derived from the restored forests—a reminder of the considerable global climate benefits that such local projects can produce.

*Source: Initiative 20x20, 2019; WRI, 2019.*



# WHY RESTORE TROPICAL FORESTS?

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Forest restoration means expanding and revitalizing forest ecosystems, which is a sure route to increasing the vital services that they provide. These include supporting local livelihoods in forest communities; powering local and national economies; regulating water and nutrient flows; providing plant and wildlife habitat; capturing and storing CO<sub>2</sub> to combat climate change; and providing cultural and spiritual grounding for forest peoples.

## **ACHIEVING CONSERVATION, CLIMATE AND SUSTAINABLE DEVELOPMENT GOALS REQUIRES FOREST RESTORATION**

An expansion of forest services is vital to meeting our national and global goals for human development, ecosystem health, biodiversity conservation, and climate change mitigation. Even if tropical deforestation stops today, remaining forests can't provide the level of forest services we need. Restoration is key to healthy ecosystems that support the needs of all species—human and nonhuman.

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## Restoration to Achieve Climate Goals

Forest restoration is integral to meeting international climate goals, since forests are a proven and relatively low-cost method of removing carbon from the atmosphere. In fact, the findings of the Intergovernmental Panel on Climate Change (IPCC) suggest that there is no path toward meeting the climate goals of the Paris Accord that doesn't assume significant forest restoration over the coming decades. To achieve the goal of limiting global climate warming to 1.5°C by 2050, the IPCC has estimated that an increase of 1 billion hectares of forest will be necessary to help sequester excess carbon emissions from the atmosphere. This is an ambitious target, representing an area far greater than has been restored in the past three decades. However, a 2019 analysis of the global potential for forest restoration shows that the target is technically achievable, and highlights the promise of rapid and widespread tree restoration as a practical climate solution (IPCC, 2018, p. 14-17, 38; Bastin et al., 2019, p.1-2; FOLU, 2019, p.89).

Forest restoration is not only important for slowing down climate change, but also for adapting to it. Forests help regulate freshwater supply and moderate local climate conditions, providing local cooling benefits to communities, and protection from extreme climate events. They also help stabilize local agriculture and generate alternative sources of income if crops fail, among many other benefits. As restoration rebuilds forest ecosystems, it restores and enhances these protective functions, and simultaneously increases forest resilience. Because of its combined mitigation and adaptation potential, forest restoration and other “nature-based solutions” are becoming a key focus in countries' national climate plans. These plans detail the actions countries will take to cut carbon emissions in order to meet the Paris climate goals. By 2018, 49 nations had already incorporated restoration targets in their national climate plans, totaling some 57 million hectares of planned restoration—everything from planted forests and woodlots to agroforestry projects and tree plantations (NYDF 2019b, p.25).

## SEEDS OF REBIRTH: XINGU SEED NETWORK (REDE DE SEMENTES DO XINGU)

Forest revival starts with seeds. And, as the Xingu Seed Network (Rede de Sementes do Xingu, or RSX) has shown in Brazil's state of Mato Grosso, seeds can also link communities and grow family incomes. The RSX brings together indigenous people across the Xingu region to collect the seeds of trees native to the area that are then sold to landowners and farmers to reforest their land. Since its formation in 2007, the network has created a seed exchange and commercialization platform involving 568 seed collectors—mostly women—spread over 19 municipalities in the Xingu Basin, which stretches across both the Brazilian Amazon forest and the Cerrado.

The RSX emerged from a campaign in 2004 to stop deforestation and promote forest recovery to protect the springs and rivers in the Xingu Basin, which is one of Brazil's most heavily deforested areas. Seed collection was one of the strategies that arose from this campaign, providing a ready source of high-quality seed stock to landowners to enable restoration and generating some R\$ 4.6 million in essential income for RSX members since the seed network began. The seed collectors have an active network, communicating regularly with each other through WhatsApp to organize meetings and share tips and testimonials about ecosystem recovery. Since the network's genesis, its members have collected and distributed some 250 tons of seeds from more than 220 local tree and shrub species, which have been used to reforest more than 6,600 ha of degraded lands.

*Source: Ashden. 2020.*

## REPAIRING THE SEBANGAU FOREST TO RESCUE ENDANGERED ORANGUTANS IN CENTRAL KALIMANTAN

In Central Kalimantan, Indonesia, a community-led restoration project is helping the Sebangau Forest recover from a devastating forest fire in 2019 that burned hundreds of thousands of hectares. As the home to over 6,000 orangutans, the Sebangau Peat Forest is a critical center for orangutan conservation and study in lowland Borneo. The forest rescue, which entails some 100,000 tree seedlings so far, is organized and funded by the Borneo Nature Foundation (BNF), an Indonesian nongovernmental organization that recently won the Trillion Trees Challenge for its community-centered restoration work. The purpose of the Sebangau project is to restore the forest's original ecological functions, increase wildlife habitat, and support green livelihoods in nearby communities.

Over the last decade, BNF has tailored its reforestation techniques to the unique challenges of peatlands restoration and the needs of local people. For the Sebangau restoration, BNF established two community nurseries to collect seeds from local unburned forests and raise seedlings until they are ready for planting. BNF has committed to buying up to 25,000 seedlings per year from these community-run nurseries, whose members then take responsibility for planting out the seedlings at the restoration site. At the most recent planting in August 2020, the two community nursery teams each planted 12,500 seedlings in the boggy terrain over a two-week period. The teams achieved a 75-90 percent seedling survival rate, in spite of the danger of wild boar eating the new trees.

The Sebangau restoration efforts are not a stand-alone project, but part of a mutually supportive web of activities to protect the local rainforest, educate the local communities on rainforest care, and support the local economy. These activities include establishing anti-logging patrols and fire-fighting teams, and developing forest-friendly gardens and small business ventures such as bee-keeping and aquaculture ponds. Environmental education is also part of the mix: students are encouraged to join the reforestation activities, as well as to take part in separate forest field trips and conservation projects.



**Contributing to the repair and renewal of Earth systems can bring healing at many levels, both individual and collective, as community groups plan and carry out tree planting activities and nurture their plantings over time.**

*Source: Borneo Nature Foundation, 2020.*

### **Restoration to Conserve and Increase Biodiversity**

Forest restoration is also an essential element of the latest strategies to curtail the loss of species and enhance the preservation of biodiversity. Habitat loss, fragmentation and ecosystem deterioration are the principal causes of species extinction and population declines. Efforts to restore forest ecosystems and reconnect forest habitats can help reverse these negative trends. That is why the Aichi Biodiversity Targets, adopted by the international community in 2010 to reverse global biodiversity loss, explicitly called for significant ecosystem restoration by 2020, along with an end to forest loss—goals that, unfortunately, have fallen far short of achievement.

Recent studies have reconfirmed the importance of ecosystem restoration in conserving biodiversity in many different biomes and at a global level. One recent analysis estimated that 60 percent of expected extinctions could be avoided by restoring the ecosystems on just 15 percent of the world's converted lands, if the restoration sites were carefully chosen to maximize biodiversity (Bernardo et al., 2020). For this reason, a new international framework to conserve biodiversity, which is now in the process of being negotiated, will undoubtedly commit even more firmly to ecosystem restoration. One proposed target for the framework is to increase the area of “natural ecosystems” by 20 percent by 2030 through restoration (Diaz, et al, 2020, p.413).

### **Restoration to Achieve the Sustainable Development Goals**

The importance of forests to meeting the SDGs is well-documented. More than 86 million people are employed directly in the forest sector and forests support the livelihoods and food security of many more, many of them poor. Forests are essential to the food security of the more than 1 billion people who depend on wild foods, edible plants, and fish found in forest environments, and to the energy security of the nearly 2.4 billion people who depend on fuel wood or charcoal (FAO/UNEP, 2020a, p.15).

Forest restoration contributes directly to meeting these and other essential needs by increasing the overall extent, health, and productivity of forests—and therefore the quantity and quality of these basic forest services.

Forest restoration and sustainable forest management are a part of any comprehensive strategy for meeting the SDGs. For example, in relation to SDG-3 on ensuring human health and well-being, forest restoration is seen as one response to the hazard of pandemics caused by zoonotic diseases such as COVID-19—diseases that originate in animals and are passed to humans through human-animal contact. Expanding and improving forest areas through restoration can increase their effectiveness as buffers, decreasing the incidence of contact between humans and disease-carrying animals and increasing the levels of local biodiversity. In this way, forest restoration would help lower the potential for future pandemics. Beyond health, restoration has a synergistic effect on meeting the whole range of human development needs—a fact that is recognized explicitly in SDG Goal 15, which calls for protecting, restoring, and sustainably managing forests and other terrestrial ecosystems.

### **Forest Restoration for Spiritual and Social Renewal**

Aside from these practical concerns, forest restoration serves an equally critical need for spiritual renewal with regard to our care of nature and creation. It offers a chance to reinvent our relationship with the natural world, and expand our conception of stewardship. Contributing to the repair and renewal of Earth systems can bring healing at many levels, both individual and collective, as community groups plan and carry out tree planting activities, and nurture their plantings over time. Restoration activities can be unifying and inspiring—a source of pride and celebration, as well as a venue for reinforcing the cultural and spiritual connection of local peoples with the living forest. It can also be an important occasion for community education about the benefits of an intact forest and the requirements for restoring and sustaining it.



# NEW FORESTS NOW: RESTORATION ON THE GLOBAL AGENDA

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Now is an opportune time to embrace forest restoration at the global, national, and local levels. Land and forest restoration has been widely accepted by the international community as both necessary and desirable. Policymakers and resource managers at every level have cited it with increasing frequency as an effective and flexible response to multiple environment and development challenges. As a consequence, national governments have made significant restoration commitments over the last decade, promising to greatly increase their restoration efforts to achieve ambitious targets (see p.17).

Such international acceptance and attention can translate to greater political support for local restoration efforts, as well as greater access to funding and technical assistance—factors that can increase the prospects for the success of forest restoration projects. To encourage this embrace of the restoration ethic and help link international restoration commitments into a coordinated global endeavor, the United Nations General Assembly has declared a UN Decade on Ecosystem Restoration, to run from 2021 through 2030. The Decade will act as a global call to action, drawing together political support, scientific research, and financial support for scaling up all types of ecosystem restoration, and will provide a digital platform for the exchange of ideas and technical expertise on restoration (see p.18).



## REFORESTING A LANDLESS SETTLEMENT IN SÃO CRISTÓVÃO DO SUL, BRAZIL

At the settlement of Filhos do Contestada in São Cristóvão do Sul, Brazil, reforestation is bringing new life to the country's heavily degraded Atlantic forest and new food and income to the 27 formerly landless families living in the settlement. With the support of the Landless Workers Movement of Santa Catarina and the Brazilian NGO Apremavi, the Filhos do Contestada families planted 3,500 seedlings around the 23 hectares of the once-forested settlement in April 2021. When mature, the trees will form a protective belt around the settlement, filled with native fruit trees, yerba mate, Aracauria trees and other species of economic and food value. The tree planting at Filhos do Contestada is part of a larger campaign by the Landless Workers Movement to plant 100 million trees in landless settlements all over the country in the next ten years. As a representative of the NGO Apremavi observed: "We need to build a different world, with more solidarity, more peace, participation, and partnerships. The example of this settlement, where 27 families share 23 hectares and even so find room to plant 3,500 native seedlings is gratifying and shows the direction the world should take, where everyone has their space: wild animals, plants, and human beings." (Source: Apremavi, 2021)



## INTERNATIONAL AND REGIONAL ECOSYSTEM RESTORATION TARGETS AND COMMITMENTS

Governments around the world have pledged to restore over 210 million hectares (Mha) of degraded forest lands and other terrestrial ecosystems through a variety of global and regional commitments. As of mid-2021, none of the 2020 targets listed below had been reached. Note that many of the lands that countries have pledged to restore fall under more than one of the restoration initiatives listed. Also, the restoration efforts included in these pledges differ widely—both in the form they take and the human and ecosystem benefits they generate. For example, of the restoration commitments made under the Bonn Challenge (as of 2018), 45 percent were planned to be met with tree plantations, 34 percent were expected to be regeneration of natural forests, and 21 percent were expected to be agroforestry projects (NYDF, 2019b, p.25).

- **Bonn Challenge** (international): Target: Restoration of 150 Mha of degraded and deforested landscapes by 2020, and 350 Mha by 2030. As of November 2020, organizations and governments in 61 nations had pledged to restore a total of 210 Mha under the Bonn Challenge (Bonn Challenge, 2020).
- **UN Convention on Biological Diversity, Aichi Target 15** (international): Target: By 2020, restoration of at least 15 percent of the world's degraded ecosystems. Adopted by the signatories of the Convention on Biological Diversity in 2010.
- **UN New York Declaration on Forests** (international): Target: 350 Mha under restoration activities by 2030. Signed at the 2014 UN Climate Summit and endorsed by over 200 governments, companies, NGOs, associations, and other civil society organizations.
- **Initiative 20x20** (Latin America and the Caribbean): Target: Begin restoration of 20 Mha of degraded land in Latin America and the Caribbean by 2020. So far, 17 Latin American and Caribbean countries and three regional programs have committed to begin protecting more than 50 million hectares of degraded land through this regional Initiative, which supports the Bonn Challenge.
- **African Forest Landscape Restoration Initiative (AFR100)** (Africa): Target: 100 Mha of deforested and degraded land under restoration by 2030. By 2020, thirty African governments and 33 technical organizations had committed to restore 126 Mha of degraded land through this regional initiative, which supports the Bonn Challenge (AFR100, 2020).
- **Agadir Commitment** (Mediterranean): Target: Restoration of at least 8 Mha of deforested and degraded land by 2030. Signed in 2017 by 10 Mediterranean countries to support the Bonn Challenge (FAO, 2020).
- **Asia-Pacific Economic Cooperation (APEC)** (Asia-Pacific region): Target: 20 Mha of degraded forest under restoration by 2020. Adopted by APEC member countries in 2007.

## THE UN DECADE ON ECOSYSTEM RESTORATION

In 2019, the UN General Assembly called for a UN Decade on Ecosystem Restoration to reverse the rampant degradation of forests and other land and sea ecosystems around the world. Ecosystem degradation affects the well-being of some 3.2 billion people, and the cost associated with the loss of ecosystem services is estimated at 10 percent of the global GDP. Since a healthy biosphere is the foundation of sustainable development, this damage must be repaired. This has long been recognized in international policies and agreements, including the 2030 Agenda for Sustainable Development, the Paris Climate Agreement, and the Bonn Challenge.

The UN Decade does not add a new bureaucratic layer to existing international restoration agreements. Instead, it seeks the transformative change needed to create a restoration culture in which all peoples and sectors are motivated and empowered to play a part in this global challenge. It is not enough to rely on knowledge being shared top-down; it needs to spread sideways and bubble up from grassroots experience. It requires the involvement of corporations (and not just for philanthropy), “ecopreneurs,” youth (the UN Major Group for Children and Youth is a core partner, comprising 8,000 youth organizations), and, of course, faith leaders and communities.

So, while the UN Decade is coordinated by two UN agencies—UNEP and FAO—it emphasizes collective ownership and shaping of the Decade’s course. For this reason, extensive public consultations took place in 2019–2020 on the UN Decade strategy, resulting in the three action tracks at the core of the Decade’s approach:

- **A global movement:** getting people involved and excited, raising awareness to develop an appetite for change;
- **Political will:** getting those with decision making powers active in policy reforms and working across government;
- **Capacity:** helping countries, organizations and individuals to undertake restoration effectively, including sharing good practices.

A communications strategy has been developed to underpin this work, connecting hundreds of global partners across thousands of local implementers and reaching millions across the globe. It will create a digital home for the Decade to bring together different categories of partners: lead agencies, core partners, sponsors and funding partners, contributing initiatives and connectors. A Multi-Partner Trust Fund (MPTF) will help support the implementation of the Decade, as well as monitoring and reporting on its success. The IUCN (International Union for the Conservation of Nature) will use its Red List of Ecosystems initiative to provide guidelines for assessing ecosystem risk, and indicators to monitor the status of ecosystems along the trajectory of restoration.



# PLANTING THE FUTURE: HOW FAITH COMMUNITIES CAN GET INVOLVED

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## MANY OPTIONS FOR INVOLVEMENT

Faith groups can contribute to forest restoration in a variety of ways. Forest regeneration activities can be organized on church, mosque, or temple lands. Partnerships can be forged with others to plan and contribute to planting activities in nearby community forests. Faith groups can also contribute labor to carry out augmentation plantings in public parks and reserves or carry out agroforestry plantings on private lands to enhance local incomes. Or faith groups may act more at a distance, financially supporting NGOs or local organizations to carry out restoration activities in forest-dependent communities that have suffered significant forest loss.

In the political arena, faith groups can advocate for the adoption of ambitious restoration goals at a local and national level as a complement to the commitment to end deforestation.

They can also press policymakers to offer local landowners and community groups incentives for restoring and maintaining local forest cover, such as financial and technical support, or the provision of high-quality seedlings.

## COMMUNITY-FOCUSED RESTORATION

Effective community-based forest restoration is much more than planting trees. It is a commitment to restoring functional landscapes—often with many different land uses—that generate a mix of benefits for local communities, wildlife, and the global environment. For this reason, such restoration is rarely a stand-alone activity. It is usually part of a suite of mutually reinforcing activities that include developing alternative livelihoods and farming options for local people to ease forest pressures and address the underlying causes of forest loss.

## CHECKLIST FOR SUCCESSFUL FOREST RESTORATION

### Identify and assess the restoration site.

- What are the ecological conditions on the ground—the site's limitations and advantages?
- What tree species are most appropriate to plant?

### Enumerate the intended benefits and beneficiaries.

- What do you want to happen?
- When will it happen?
- Who will reap the rewards?

### Clarify site ownership.

- Who holds the tenure rights?
- Is the ownership contested?
- Do the owners support the restoration work?

### Create a restoration plan with community (and government) buy-in.

- Does it result from community consultation and reflect community goals?
- Are authority and timelines clear?
- Are government permits or other permissions required?

### Identify suitable partners.

- Are local organizations or NGOs available to help?
- Can government agencies such as the Forest Department play a support role?

### Arrange funding and technical assistance.

- How will nursery stock, transportation, labor, and other costs be paid for?
- Who will provide technical help?

### Carry out the restoration work.

- Who will organize the work and provide quality control?

### Monitor and maintain your work and communicate your success.

- Who will monitor the restoration, and how will you measure success?
- Are there incentives to maintain the restored site and preserve forest cover?
- How will you communicate your success, and what you have learned?

As faith groups approach the work of forest restoration, it may be helpful to consider that empowering, inspiring, and informing forest communities can be as much an explicit goal of forest restoration work as restoring the forest ecosystem itself.

It is also a commitment to a process of community consultation to assure that local people support and are involved in the planning and execution of the work, since they are often the primary users of local forests and will have a critical role in maintaining restored lands. Communities themselves often consist of a variety of different interest groups, so community consultation—and the restoration projects that result—usually involves input and cooperation among a range of different parties, including local land owners, community groups and nonprofits, government agencies, and business groups.

#### **PLANNING AND VISION ARE CRUCIAL**

Successful community-based forest restoration is not a casual activity, but the result of careful planning and visioning. Restoration goals and means will vary widely based on forest conditions and community interest. But many basic considerations are common to all restoration projects and will provide the basis of a restoration plan to guide on-the-ground activities:

- What are the primary goals of the tree planting?
- What are the benefits that will accrue, and when?  
Who will the beneficiaries be?
- What are the physical characteristics of the site, and who owns it?
- Who will do the actual restoration work and how will it be paid for?
- How will the restoration be maintained, and by whom?

Answering these questions in some detail is crucial not only to successfully carrying out the immediate restoration work, but to assuring that this work is supported by local residents and can be sustained over time (see p.20).

#### **EMPHASIZING EMPOWERMENT AND EDUCATION**

As faith groups approach the work of forest restoration, it may be helpful to consider that empowering, inspiring, and informing forest communities can be as much an explicit goal of forest restoration work as restoring the forest ecosystem itself.

Restoration work can be hugely educational and community-building, as well as bringing physical and mental health benefits to the communities involved. Restoration activities provide an optimum setting for highlighting current forest conditions and educating the community on the methods and practical benefits of good forest stewardship. Involving local youth in restoration projects can be a particularly effective way of nurturing forest awareness among the next generation of forest stewards. Raising and planting seedlings are jobs that even young people can do, so forest restoration can be both an environmental education opportunity and a way to involve local schools in a community activity (UNDP 2016, p.135).

#### **A ROLE FOR TRADITIONAL KNOWLEDGE**

The importance of community input in restoration projects goes beyond the fact that community members are often the most dependent on local forests and have the most at stake in any restoration efforts. They are also likely to be the most knowledgeable about what grows best in their location. Indeed, Indigenous and other traditional knowledge can be a key resource for successful forest restoration. Such environmental knowledge often resides with members of a local community, who can provide extensive and detailed information about sites and ecosystems, drawn from their long-term relationship with these sites, and informed by generations of observation and experimentation. This knowledge can complement scientific knowledge of local restoration dynamics to help identify planting materials and methods appropriate to a particular restoration site (Gann et al., 2019, p.S10).

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**Faith communities  
can help set the moral  
standard for what must  
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commitment to revitalize  
degraded ecosystems.**

## FOREST CONSERVATION IN CHOCÓ, COLOMBIA AND ITS RELATION TO CULTURAL AND TERRITORIAL RIGHTS

In Colombia, in the department of Chocó, the close relationship between human rights and ecosystem protection is evident. Large infrastructure projects such as canals, road corridors, and the expansion of seaports, as well as the area's importance as a mining enclave, require that forest restoration must go beyond environmental protection alone. In fact, forest restoration is just part of a larger social movement towards the recognition and fostering of cultural and territorial rights and the adoption of a development model that better reflects the needs of local communities.

For several decades, the Catholic Diocese of Quibdó has been helping indigenous and black organizations to defend their territory. All the work the Diocese carries out is done in alliance with ethnic territorial organizations, and thanks to this partnership—aided by national and international advocacy—Chocó marked a milestone in environmental care in 2016 when the Legislature enacted Decree 622, which recognizes the Atrato River as a subject of local territorial rights and provides that it should be given special treatment accordingly.

Meanwhile, in Vereda San Isidro, the Diocese has collaborated with the Antonio Anglés School for the last seven years in the creation of the Environmental Center for Ethnocultural Biodiversity of Chocó (CABECH). The Center was born from an initiative to save the Quito River from the environmental damage caused by illegal mining. Its mission is to raise awareness among students that mining is not a viable livelihood for the local communities. The Community Councils have been a great ally in this initiative, allocating 130 hectares of tropical forest for preservation by the Environmental Center, which has recovered ancestral roads and has initiated a process of forest restoration in areas previously degraded by mining. In addition to this restoration component, the project also includes a productive component involving tending the school garden and raising poultry.

A photograph of a dense tropical forest covering a hillside. The trees are various shades of green, with some taller, thinner trees and some shorter, broader-leaved trees in the foreground. The sky is overcast with grey clouds. The text 'A NEW STEWARDSHIP FOR AN AGE OF ENVIRONMENTAL CHALLENGE' is overlaid in white, bold, uppercase letters across the top of the image.

# A NEW STEWARDSHIP FOR AN AGE OF ENVIRONMENTAL CHALLENGE

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Faith communities can help set the moral standard for what must become a widely shared commitment to revitalize degraded ecosystems. Under the aegis of the UN Decade on Ecosystem Restoration, faith communities can become active advocates for forest restoration programs at the national and local levels. This can involve both educating themselves on the necessity and benefits of restoration, and participation in community tree-planting efforts and long-term care of restored sites.

Such direct involvement with restoration can become an occasion for developing a more personal understanding of and investment in forest spaces and the spiritual sustenance they can provide. It can make sense of what forest stewardship truly requires as well as its rewards, both personal and for the wider community of forest users and inhabitants. So too, participating in restoration actions can become a source of grassroots connection beyond the confines of one's own group or community—a way to celebrate forest rebirth as a universal sign of faith, fellowship, and spiritual renewal.



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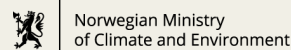
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## ABOUT THIS PRIMER

This primer is part of a series of briefs meant to inform and inspire faith communities to action to help safeguard tropical forests and their inhabitants. Through facts, graphics, analysis, and photos, these primers present the moral case for conserving and restoring rainforest ecosystems, supported by the latest science and policy insights. They bring together the research and practical tools that faith communities and religious leaders need to better understand the importance of tropical forests, to advocate for their protection, and to raise awareness about the ethical responsibility that exists across faiths to take action to end tropical deforestation.

## PARTNERS

The Interfaith Rainforest Initiative welcomes engagement by all organizations, institutions and individuals of good faith and conscience that are committed to the protection, restoration and sustainable management of rainforests.



## INTERFAITH RAINFOREST INITIATIVE

The Interfaith Rainforest Initiative is an international, multi-faith alliance working to bring moral urgency and faith-based leadership to global efforts to end tropical deforestation. It is a platform for religious leaders and faith communities to work hand-in-hand with indigenous peoples, governments, NGOs and businesses on actions that protect rainforest and the rights of those that serve as their guardians. The Initiative believes the time has come for a worldwide movement for the care of tropical forests, one that is grounded in the inherent value of forests, and inspired by the values, ethics, and moral guidance of indigenous peoples and faith communities.

## QUESTIONS?

The Interfaith Rainforest Initiative is eager to work with you to protect tropical forests and the rights of indigenous peoples. Contact us at [info@interfaithrainforest.org](mailto:info@interfaithrainforest.org).



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